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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/000,460 | 11/30/2001 | Masajirou Inoue | SIW-024 | 2302 |
| 959 | 7590 | 10/06/2005 | EXAMINER | |
| LAHIVE & COCKFIELD, LLP. 28 STATE STREET BOSTON, MA 02109 | | | ORTIZ, ANGELA Y | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1732 | |
| DATE MAILED: 10/06/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,460

Applicant(s)

INOUE ET AL.

Examiner

Angela Ortiz

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– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable Sasaki et al., USP 6,649,097 in view of Engelhardt, USP 3,619,458 (both of record).

The cited primary reference substantially teaches the basic claimed method of molding a gasket or seal onto a carbon plate or separator, the steps comprising providing a separator plate, forming a hole in the plate, positioning the plate within a mold cavity between an upper mold and a lower mold such that the through hole is between an upper and lower grooved surface of the molds, and injecting seal material such that the material fills the grooves and the through hole to form a contoured seal. The mold is provided with a runner and multiple gates, upper grooved surfaces on the upper mold and lower grooved surfaces on the lower mold, and can include support means within one grooved surface when molding a seal on one side, and an injection source for the seal material. The porous carbon plate being molded on can comprise a separator plate, and include a through hole or multiple holes. Note that a seal bridge is readable on the upper and lower grooves connected by the through holes in the plate. See col. 4, lines 20-25, 48-60; col. 5, lines 50-65; col. 6, lines 1-5, 12-30, 40-50, 55-65; col. 7, lines 1-20 and col. 8, lines 10-20, 53-65.

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The cited primary reference does not set forth the seal material separately supplied to the gates, or the gate connected to a portion not on the sealing surface.

The added reference sets forth the molding of a gasket using gates that are separately supplied with gasket forming material, wherein the gate rests on a portion not on the sealing surface of the gasket. See figure 3, col. 2, lines 20-40.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide separate supply sources and use a gate not on a sealing surface as shown in the added reference, when performing the process set forth in the primary reference, for molding the gasket using equivalent alternative means and for forming a seal wherein the gate sprue does not interfere with sealing functions of the gasket.

With respect to claim 4, note that the primary reference sets forth the gate on the sealing surface of the seal.

With respect to claims 3 and 10, note that the separate gates of the cited primary reference have connecting runners that mate at the through hole of the plate, and read on the claimed wrap around due to their configuration; see figure 4.

With respect to claims 5-7, 9, 11-13, note that the added reference teaches as conventional the provision of dual seals at (7), separate gates (10,11) mating by runner (8,9), which form a connecting cavity and seal bridge between the dual seals, which lead to gasket cavity (4(b)). See figure 3.

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With respect to claim 8, note that the overflow stays in channels 8,9; it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the same benefit at any desired location to minimize sprue formation.

Response to Arguments

Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Note that the new art rejection addresses the newly cited limitations.

Terminal Disclaimer

The terminal disclaimer filed on August 5, 2005 disclaiming the terminal portion of any patent granted on this application that would extend beyond the expiration date of any patent granted on application serial number 10/010,254 has been reviewed and is accepted. The terminal disclaimer has been recorded.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela Ortiz whose telephone number is 571-272-1206. The examiner can normally be reached on Monday-Thursday 9:00-6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on 571-272-1196. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Angela Ortiz
Primary Examiner
Art Unit 1732

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